APPENDIX A

1. Changes to the Abstract, lines 2-11 of page 38, are as follows:

[The present invention is directed to a] A high speed spindle motor [comprising] is constructed from a stator assembly including a stator having multiple conductors that create a plurality of magnetic fields when electrical current is conducted by the conductors and a body of a phase change material such as a thermoplastic substantially encapsulating the stator. A rotatable hub having a magnet connected thereto is in operable proximity to the stator. The high speed motor also includes a shaft, a bearing surrounding the shaft and one of the bearing or shaft being fixed to the stator assembly and the other of the bearing or shaft being fixed to the rotatable hub. Hard disc drives using the motor, and methods of developing and constructing the motor and hard disc drives are also disclosed.

2. Changes to the paragraphs on page 27, line 4, to page 28, line 9, are as follows:

Most thermoplastic materials have a relatively high CLTE. Some thermoplastic materials may have a CLTE at low temperatures that is similar to the CLTE of metal. However, at higher temperatures the CLTE does not match that of the metal. A preferred thermoplastic material will have a CLTE of less than 2×10^{-5} [in/in/°F] in/in °F, more preferably less than 1.5×10^{-5} [in/in/°F] in/in °F, throughout the expected operating temperature of the motor, and preferably throughout the range of 0-250°F. Most preferably, the CLTE will be between about 0.8×10^{-5} [in/in/°F] in/in °F and about 1.2×10^{-5} [in/in/°F] in/in °F throughout the range of 0-250°F. (When the measured CLTE of a material depends on the direction of measurement, the relevant CLTE for purposes of defining the present invention is the CLTE in the direction in which the CLTE is lowest.)

The CLTE of common solid parts used in a motor are as follows:

	23°C	250°F	
Steel	0.5	0.8	($\times 10^{-5}$ [in/in/°F] in/in °F)
Aluminum	0.8	1.4	
Ceramic	0.3	0.4	

Of course, if the motor is designed with two or more different solids, such as steel and aluminum components, the CLTE of the phase change material would preferably be one that was intermediate the maximum CLTE and the minimum CLTE of the different solids, such as 0.65 [in/in/°F] in/in °F at room temperature and 1.1 $\times 10^{-5}$ [in/in/°F] in/in °F at 250°F.

One preferred thermoplastic material, Konduit OTF-212-11, was made into a thermoplastic body and tested for its coefficient of linear thermal expansion by a standard ASTM test method. It was found to have a CLTE in the range of –30 to 30°C of 1.09×10^{-5} [in/in/°F] in/in °F in the X direction and 1.26×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions, and a CLTE in the range of 100 to 240°C of 1.28×10^{-5} [in/in/°F] in/in °F in the X direction and 3.16×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions. (Hence, the relevant CLTEs for purposes of defining the invention are 1.09×10^{-5} [in/in/°F] in/in °F and 1.28×10^{-5} [in/in/°F] in/in °F.) Another similar material, Konduit PDX –0-988, was found to have a CLTE in the range of –30 to 30°C of 1.1×10^{-5} [in/in/°F] in/in °F in the X direction and 1.46×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions, and a CLTE in the range of 100 to 240°C of 1.16×10^{-5} [in/in/°F] in/in °F in the X direction and 3.4×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions. By contrast, a PBS type polymer, (Fortron 4665) was likewise tested. While it had a low CLTE in the range of –30 to 30°C (1.05×10^{-5} [in/in/°F] in/in °F in the X direction and 1.33×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions), it had a much higher CLTE in the range of 100 to 240°C (1.94×10^{-5} [in/in/°F] in/in °F in the X direction and 4.17×10^{-5} [in/in/°F] in/in °F in both the Y and Z directions).

Changes to the claims are as follows:

1. (Amended) A high speed spindle motor for a disc drive comprising:

a) a shaft having a rotational axis;

b) a disc support member attached to the shaft and including a permanent magnet;

c) a bearing [surrounding] allowing rotation of the disc support member about the rotational axis of the shaft;

d) a stator; and

e) a monolithically formed body that substantially encapsulates the stator, wherein a thermoplastic material is injection molded to form the body and the body is configured to align the shaft, disc support member and bearing with respect to one another.

12. (Amended) The high speed motor of claim [1] 11 wherein the second magnet is an enhancement magnet.

13. (Amended) The high speed motor of claim [1] 11 wherein the second magnet is part of a magnetic bearing.

14. (Amended) A high speed spindle motor for a disc drive comprising:

a) a shaft;

b) a disc support member attached to the shaft;

c) a bearing disposed around the shaft;

d) a stator; and

e) a monolithically formed body that substantially encapsulates the stator, the monolithically formed body surrounding the bearings and the shaft, the body being formed by injection molding and being made of a material having a coefficient of linear thermal expansion of less than 2x10^{-5} in/in/°F throughout the range of 0-250°F.

20. (New) A high speed spindle motor for a disc drive comprising:

a) a shaft;

b) a disc support member attached to the shaft and including a permanent magnet;

c) a bearing surrounding the shaft;

d) a stator; and

e) a monolithically formed body that substantially encapsulates the stator, wherein a thermoplastic material is injection molded to form the body, the material has a coefficient of thermal conductivity of at least 0.7 watts/meter°K at 23°C and the body is configured to align the shaft, disc support member and bearing with respect to one another.

21. (New) The high speed motor of claim 1 wherein the bearing is fixed to the body.

22. (New) The high speed motor of claim 1 wherein the shaft is fixed to the disc support member.

23. (New) The high speed motor of claim 1 wherein the stator further comprises a core and conductors that induce magnetic fields in the core when current is conducted by the conductors.

24. (New) The high speed motor of claim 23 wherein the core comprises steel laminations.

25. (New) The high speed motor of claim 23 wherein the core has a plurality of poles and the conductors comprise windings around said poles.

26. (New) The high speed motor of claim 1 wherein the bearing comprises ball bearings.

27. (New) The high speed motor of claim 26 wherein the bearings comprise oversized bearings having an outer diameter of over 13 mm.

28. (New) The high speed motor of claim 1 wherein the bearing is a hydrodynamic bearing.

29. (New) The high speed motor of claim 1 wherein the motor is able to operate at at least 10,000 rpm.

30. (New) The high speed motor of claim 8 wherein the insert provides structural rigidity to the body.

31. (New) The high speed motor of claim 8 wherein the insert enhances heat transfer away from the bearing and the stator.

32. (New) The high speed motor of claim 1 wherein a first portion of a magnetic bearing is substantially encapsulated within the body and a second opposing portion of the magnetic bearing is attached to the disc support member.

33. (New) The high speed motor of claim 32 wherein the body has been machined to provide precise tolerance between the first and second portions of the magnetic bearing.

34. (New) The high speed motor of claim 8 wherein the insert enhances dampening of motor vibration.

35. (New) The high speed motor of claim 8 wherein the insert enhances dampening of audible noise.

36. (New) The high speed motor of claim 8 wherein the shaft is fixed to the body and the insert is positioned between the shaft and the bearing.

37. (New) The high speed motor of claim 1 wherein the thermoplastic material includes ceramic particles.

38. (New) The high speed motor of claim 1 wherein the thermoplastic material has a coefficient of linear thermal expansion of less than 2×10^{-5} in/in/°F throughout the range of 0-250°F.

39. (New) The high speed motor of claim 1 wherein the thermoplastic material has a coefficient of linear thermal expansion of less than 1.5×10^{-5} in/in/°F throughout the range of 0-250°F.

40. (New) The high speed motor of claim 1 wherein the thermoplastic material has a coefficient of linear thermal expansion of between about 0.8×10^{-5} in/in/°F and about 1.2×10^{-5} in/in/°F throughout the range of 0-250°F.

41. (New) The high speed motor of claim 1 wherein the bearing comprises steel, the disc support member comprising aluminum and the thermoplastic material has a coefficient of linear thermal expansion that is between the coefficient of linear thermal expansion of the steel and the coefficient of linear thermal expansion of the aluminum.

42. (New) The high speed motor of claim 1 wherein the thermoplastic material comprises polyphenyl sulfide.

43. (New) The high speed motor of claim 1 wherein the shaft is fixed to the thermoplastic body by being molded with the stator in the thermoplastic body.

44. (New) The high speed motor of claim 1 wherein the bearing is fixed to the thermoplastic body with a press fit.